

## **4.0 Capital Improvements Implementation**

### **4.1 Five-Year Schedule of Capital Improvements**

Table 4.1, Five-Year Schedule of Capital Improvements, lists the public facilities which Monroe County will provide in order to reduce existing deficiencies, provide for necessary replacements, and meet the future demand identified by the Comprehensive Plan. In accordance with Rule 9J-5 of the Florida Administrative Code, the schedule includes the following public facility types for the five years subsequent to plan adoption (Fiscal Year 1992/93, which begins on October 1, 1992, to Fiscal Year 1996/97, which ends on September 30, 1997):

1. transportation facilities including roads, port, and aviation facilities;
2. solid waste;
3. sanitary sewer;
4. drainage; and
5. parks and recreation.

The schedule does not include potable water projects or improvements to US 1 required to alleviate existing deficiencies because it is anticipated that these projects will be funded by the Florida Keys Aqueduct Authority (FKAA) and Florida Department of Transportation (FDOT), respectively. These projects are presented for information purposes only in Table 4.2.

For each project listed in the Five-Year Schedule of Capital Improvements, projected costs and revenue sources are indicated. The projects are described in Sections 4.1.1 to 4.1.6.

#### **4.1.1 Transportation**

##### **A. Roads**

##### **Card Sound Road**

Conservation and Coastal Management Policy 216.1.3 designates Card Sound Road as a hurricane evacuation route as directed by the Monroe County Department of Emergency Management (see Section 3.2). Because of its low elevation which makes it vulnerable to flooding, this road will be raised five feet and widened from the Dade County line to CR 905.

##### **Other County Roads**

The projects designated as "Other County Roads" in the Five-Year Schedule of Capital Improvements include roadway improvement projects throughout the Keys taken from the Division of Public Work's Seven Year Roadway/Bicycle Path Plan. These projects, which are extracted from the Division of Public Work's Seven Year Roadway/Bicycle Path Plan (see Table 4.28 of the Technical Document), are mostly minor roadway widening projects and are unrelated to the level of service standards established for traffic.

Table 4.1

**Five-Year Schedule of Capital Improvements**

Project	Funding Source	FY 92	FY 93	FY 94	FY 95	FY 96
<b>Transportation</b>						
Card Sound Road	Impact fees, tolls	5,500,000	5,500,000			
Other County Roads (1)	Gas taxes	1,326,670	1,223,050	1,980,780	1,184,700	925,100
Port-Related County Road Projects	Gas taxes		30,000			
KWIA Terminal Building	FAA, FDOT, Airport Revenue		1,000,000	1,000,000		
KWIA - Other Improvements	FAA, FDOT, Airport Revenue	720,000	40,000	160,000	50,000	260,000
Marathon Airport Terminal	FAA, FDOT, Airport Revenue		2,235,000	2,235,000		
Marathon Airport - Other Improvements (2)	FAA, FDOT, Airport Revenue	480,000	1,340,000		140,000	400,000
<b>Solid Waste</b>						
Sledge/Septage Treatment Facility (3)	Infrastructure taxes, DEM enterprise funds	3,000,000	(3)			
Alternate Disposal Technologies	Infrastructure taxes, DEM enterprise funds	(3)	(3)	(3)		
<b>Sanitary Sewer / Drainage</b>						
Sanitary Wastewater/Stormwater Management Master Plans	DEM enterprise funds	935,000	935,000	935,000		
Future Sanitary Wastewater Projects	DEM enterprise funds				(5)	(5)
Future Drainage Projects	Stormwater Utility, general funds (4)				(5)	(5)
<b>Recreation</b>						
Park Acquisition/Development - Upper Keys	Ad valorem taxes, infrastructure taxes, recreation impact fees, Land Authority	907,500	165,000	165,000	165,000	165,000
Park Acquisition/Development - Middle Keys	Ad valorem taxes, infrastructure taxes, recreation impact fees, Land Authority	27,500	68,750	68,750	68,750	68,750
Park Acquisition/Development - Lower Keys	Ad valorem taxes, infrastructure taxes, recreation impact fees, Land Authority	1,952,500	75,625	75,625	75,625	75,625
<b>TOTAL (\$)</b>		<b>14,849,170</b>	<b>12,612,425</b>	<b>6,620,155</b>	<b>1,684,075</b>	<b>1,894,475</b>

(1) See table 4.27 of the Technical Document for a detailed listing of these roadway improvements.

(2) See Table 6.4 of the Technical Document for a detailed listing of these improvements.

(3) The estimated costs of a sludge, septage, and/or leachate treatment and disposal facility on Crawl Key and any facilities required to support alternative solid waste management technologies will be determined by January 1, 1993 based upon an evaluation by Monroe County DEM. A preliminary figure of \$3 million has been budgeted for the Crawl Key Facility.

(4) A Stormwater Utility to fund future rainage projects will be evaluated as part of the combined Sanitary Wastewater/Stormwater Management Master Plan.

(5) The estimated costs of future sanitary wastewater and drainage projects will be determined based upon the results of the combined Sanitary Wastewater/Stormwater Management Master Plan

**Table 4.2****Capital Improvements to be Provided by Florida Keys Aqueduct Authority (FKAA)**

Project	Target Fiscal Year(s)	Estimated Cost
<b>Potable Water Improvements (FKAA) (1)</b>		
Distribution Upgrade Projects	92/93-94/95 1995/96-2004/05	\$14,100,000 \$19,300,000
Future 5 MG Tank (or Stock Island Aquifer Storage Recovery)	1995/96-2004/05	\$1,020,000
Long Key Pump Station renovation	92/93-94/95	\$900,000
Cathodic Protection - Phases 3,4,5,6	92/93-94/95 1995/96-2004/05	\$400,000 \$1,000,000
24" main from Sugarloaf Key to Stock Island	92/93-94/95	\$1,170,000

- (1) Potable water projects and costs are derived from the FKAA's Capital Improvements Program. This program assigns projects to two general time periods, FY 1992/93-1994/95 and FY 1995/96-2004/5, rather than breaking them out by year.

Source: Barton Aschman, 1991; FKAA, 1990

**Port-Related County Road Projects**

Three county roads in the Stock Island port area - Fourth Street, Fifth Street and Peninsular Avenue - are characterized by flooding problems. These flooding problems will be corrected in order to improve access to the port facilities.

**B. Mass Transit**

Monroe County does not currently operate or have plans to construct mass transit facilities. Therefore, no mass transit projects are included in the Five-Year Schedule of Capital Improvements. Although the County does provide paratransit service to the transportation disadvantaged, the costs of providing this service are considered operating rather than capital expenses.

**C. Ports**

The Five-Year Schedule of Capital Improvements does not include any port improvement projects because the only port facility in unincorporated Monroe County, located on Stock Island, is privately owned. As previously noted, improvements to three county roads are proposed to correct flooding problems and improve access to the port area.

**D. Aviation**

The Five-Year Schedule of Capital Improvements includes capital projects for both county-operated airports, Key West International and Marathon. These projects, which are listed in Table 6.5 of the Technical Document include expanded terminal facilities for both airports and other miscellaneous improvements.

#### **4.1.2 Potable Water**

Table 4.2 lists future improvements which will be made by the FKAA to its distribution system and transmission and supply system to provide for Monroe County's potable water needs through the year 2005. These improvements include projects to increase the water supply system's storage capacity in order to maintain reliable service during plant or power outages, consistent with Policy 701.6.1 (see Section 3.7). Specific projects include upgrading of the 18" diameter pipe between Sugarloaf Key and Stock Island to 24", renovation of the Long Key Pump Station, and construction of a future 5 million gallon storage tank at a location to be determined based upon operational experience and actual system growth. Consistent with Objective 701.6 and supporting policies, the FKAA is investigating the feasibility of implementing an Aquifer Storage Recovery (ASR) system on Stock Island. (See Chapter 8.0 of the Technical Document, Potable Water Element).

#### **4.1.3 Solid Waste**

##### **A. Sludge/Septage Treatment Facility**

Sludge, septage and leachate generated in Monroe County is currently removed by private contractors for disposal at an out-of-county location. In accordance with Policies 801.3.5 and 801.3.6 (see Section 3.8), the Monroe County Department of Environmental Management (DEM) is currently pursuing plans to construct a sludge, septage, and possibly leachate treatment facility on a 40-acre site owned by the County at mile marker 56.5 on Crawl Key to provide a long-term treatment and disposal solution. The estimated cost of this project will be determined by January 4, 1997 based upon the specific technology to be utilized in the facility.

##### **B. Alternative Waste Disposal Technology**

Solid waste generated in Monroe County is currently hauled out of the County by a private contractor for disposal at a sanitary landfill facility owned by the contractor, Waste Management Inc. (WMI), in unincorporated Broward County. In accordance with Policies 801.3.8 and 801.3.9 (see Section 3.8), the Monroe County DEM is currently evaluating the development and implementation of an alternative solid waste processing and disposal technology or technologies, such as composting or pelletization, to provide a long-term solid waste disposal solution. The specific types and locations of facilities required to implement the chosen technology or technologies, and the estimated costs of these facilities, will be determined by January 4, 1997.

#### **4.1.4 Sanitary Sewer**

Sanitary sewer facilities are not addressed in Monroe County's current Capital Improvements Program because there is no public sewer service in the County. In accordance with Objective 901.4 and related policies (see Section 3.9), a comprehensive Sanitary Wastewater Master Plan will be prepared which will inventory existing private wastewater disposal, collection, and treatment facilities within the County, evaluate issues related to wastewater disposal such as water quality impacts, and make recommendations regarding future capital improvements required to alleviate identified deficiencies and serve future development. The locations and costs of future capital improvements required to implement the plan will be determined by January 4, 1998 based upon the plan's recommendations.

Because of the interrelated nature of wastewater disposal and drainage water quality issues, and in

order to maximize cost effectiveness, the study will be prepared as a combined Sanitary Wastewater/ Stormwater Management Master Plan (SW/SMMP).

#### **4.1.5 Drainage**

Existing public drainage facilities in Monroe County are limited in extent. In accordance with Objective 1001.3 and related policies (see Section 3.10), a comprehensive Stormwater Management Master Plan will be prepared which will inventory existing drainage facilities within the County, evaluate issues related to stormwater management such as water quality impacts, and make recommendations regarding future capital improvements required to alleviate identified deficiencies and serve future development. This study will be prepared in conjunction with the Sanitary Wastewater Master Plan as a combined SW/SMMP. The locations and costs of future capital improvements required to implement the plan will be determined by January 4, 1998 based upon the plan's recommendations.

#### **4.1.6 Parks and Recreation**

The Five-Year Schedule of Capital Improvements lists parkland acquisition and development projects which are necessary to achieve and maintain the level of service standard for activity-based recreational land established in Recreation and Open Space Policy 1201.1.1. Projects listed for Fiscal Year 1992/93 are required to alleviate existing deficiencies of 3.3, 0.1, and 7.1 acres of activity-based recreational land in the Upper, Middle, and Lower Keys, respectively. The projects listed for Fiscal Years 1993/94 through 1996/97 are required to accommodate projected future growth permitted by the Future Land Use Element. Acquisition and development of 2.4, 1.0, and 1.1 acres of parkland will be required in the Upper, Middle, and Lower Keys, respectively, to meet the demand for activity-based recreational land to serve projected future growth during the five years following plan adoption.

### **4.2 Programs to be Adopted in Support of Capital Improvements Goals, Objectives and Policies**

Goals, objectives and policies for capital improvements are presented in Section 3.14. Monroe County will adopt the programs described in Sections 4.2.1 to 4.2.3 in support of these goals, objectives and policies. These programs will ensure that public facilities and services meeting the levels of service standards established in the Comprehensive Plan will be available concurrent with the impacts of development.

#### **4.2.1 Five-Year Schedule of Capital Improvements**

Concurrent with plan adoption, projects identified in the Comprehensive Plan Five-Year Schedule of Capital Improvements will be incorporated into the Monroe County Capital Improvements Program. The Five-Year Schedule will not be adopted to replace the County's Capital Improvements Program because the Capital Improvements Program includes facility types such as jails and public buildings which are not addressed by the Comprehensive Plan. In subsequent years, the Monroe County Growth Management Division will be responsible for updating the Five-Year Schedule of Capital Improvements to include capital projects for the public facility types required by Chapter 9J-5 based upon the criteria contained in Capital Improvements Policy 1401.1.2. On an annual basis, Monroe County will incorporate such revisions to the Comprehensive Plan Five-Year Schedule into the County Capital Improvements Program.

#### **4.2.2 Fair Share Impact Fees**

Under Article X, Impact Fees, of the Monroe County Land Development Regulations, new developments are assessed fair share impact fees to assist in providing funding for facility expansions required to accommodate new growth. Impact fees are currently assessed for the following types of facilities: transportation, solid waste, parks and recreation, library, and police facilities. Concurrent with adoption of the Comprehensive Plan, Monroe County will adopt revisions to Article X which update the current impact fee assessment system, thus ensuring that future development pays a proportionate fair-share cost of facility improvements necessary to maintain the level of service standards adopted pursuant to the plan. The revisions will include procedures for assessment of impact fees to help offset the costs of extending fire, ambulance, and emergency services to serve new development.

#### **4.2.3 Concurrency Management System**

Under Section 9.5-292 of the Monroe County Land Development Regulations, new development must be served by adequate roads, potable water, solid waste, and school facilities as determined by the level of service standards established in the section. Concurrent with adoption of the Comprehensive Plan, Monroe County will adopt revisions to Section 9.5-292 which establish a Concurrency Management System consistent with Capital Improvements Policy 1401.4.5. The Concurrency Management System will ensure that no new development permits will be issued unless adequate public facilities needed to support the development at the level of service standards for all of the public facility types addressed in the Comprehensive Plan are available concurrent with the impacts of development. The Concurrency Management System will include specific provisions for interpreting and applying the level of service standards to applications for development orders and permits.